Worried about type 2 diabetes? Walk after every meal

Nanci Hellmich, USA TODAY  12:02 a.m. EDT June 12, 2013

A new study shows the benefits of walking for 15 minutes after every meal.

If you’re at risk for developing type 2 diabetes, then take a 15-minute walk after every meal.

A study, out today, shows that moderately-paced walks after meals work as well at regulating overall blood sugar in adults with pre-diabetes as a 45-minute walk once a day.

And there’s an added benefit of walking after every meal, especially dinner: It helps lower post-meal blood sugar for three hours or more, the research found.

Walking after a meal “really blunts the rise in blood sugar,” says the study’s lead author Loretta DiPietro, professor and chair of the department of exercise science at the George Washington University School of Public Health and Health Services.

“You eat a meal. You wait a half-hour and then you go for a 15-minute walk, and it has proven effective in controlling blood sugar levels, but you have to do it every day after every meal. This amount of walking is not a prescription for weight loss or cardiovascular fitness — it’s a prescription for controlling blood sugar,” she says.

The Italians call the walk after dinner a passeggiata and know it aids in digestion, DiPietro says. “Now we know it also helps the clearance of blood sugar.”

Currently, almost 26 million children and adults (8.3% of the population) in the USA have diabetes, and about 79 million Americans have pre-diabetes. In diabetes, the body does not make enough of the hormone insulin, or it doesn’t use it properly. Insulin helps glucose (sugar) get into cells, where it is used for energy. If there’s an insulin problem, sugar builds up in the blood, damaging nerves and blood vessels.

DiPietro and colleagues worked with 10 overweight, sedentary volunteers, who were an average age of 71. All had higher than normal blood sugar levels and were considered pre-diabetic, which means they were at risk for developing type 2 diabetes, the most common type.

Each participant stayed in a metabolic chamber, a special room that helps researchers track the calories burned by the volunteers, for two days on three separate occasions. The first day on each occasion was considered a control day, and participants did no physical activity.

On the second day, the participants did one of three things: They walked at an easy to moderate pace (about 3 mph) on a treadmill for 15 minutes — about a half hour after each meal.

On the other days the participants either walked for 45 minutes at 10:30 a.m. or they walked the same amount of time at 4:30 p.m. Their blood sugar levels were measured continuously throughout the two-day period.

The research, published in the June issue of Diabetes Care, shows that the timing of walks is important for providing health benefits, DiPietro says. Walking is beneficial because the muscle contractions “help to clear blood sugar,” she says.

After dinner is a good time to get up and walk with your partner, a neighbor or your dog, she says. If you can’t go outside, then march in place for 15 minutes, she says.

After lunch, many employees go and sit down for another four hours, but based on these findings, companies and businesses should make it easier for employees to go out and take a walk after lunch, says Tim Church, director of preventive medicine research at the Pennington Biomedical Research Center in Baton Rouge.

John Anderson, president of medicine and science for the American Diabetes Association, says it makes sense that a short walk would lower post-meal blood sugar. “What we don’t know is if it is going to make a big difference over time in people’s progression from prediabetes to diabetes — any more than the standard exercise advice of walking 30 minutes a day five days a week.”

Other research shows that amount of exercise and a weight loss of 5% to 7% helps reduce the risk of developing the disease, Anderson says.
DiPietro says the results of this study may also apply to pregnant women who are at risk for gestational diabetes, and the findings may also be helpful to people who aren't able to walk for 45 minutes at a time but are able to do 15 minutes.

The study was sponsored by the National Institute on Aging, part of the National Institutes of Health.

The government's exercise guidelines recommend that:

- Adults get at least 2½ hours of moderate-intensity physical activity each week, such as brisk walking, or 1½ hours of a vigorous-intensity activity, such as jogging or swimming laps, or a combination of the two types, to get the most health benefits from exercise. These aerobic activities should be done in at least 10-minute bouts.

- To get even more health benefits, people should do five hours of moderate-intensity physical activity each week or 2½ hours of vigorous activity.

- Adults should do muscle-strengthening (resistance) activities at a moderate- or high-intensity level for all major muscle groups two or more days a week. This should include exercises for the chest, back, shoulders, upper legs, hips, abdomen and lower legs. These exercises can be done with free weights or machines, resistance bands, calisthenics that use body weight for resistance (push-ups, pull-ups, sit-ups), or carrying heavy loads or doing heavy gardening such as digging or hoeing.